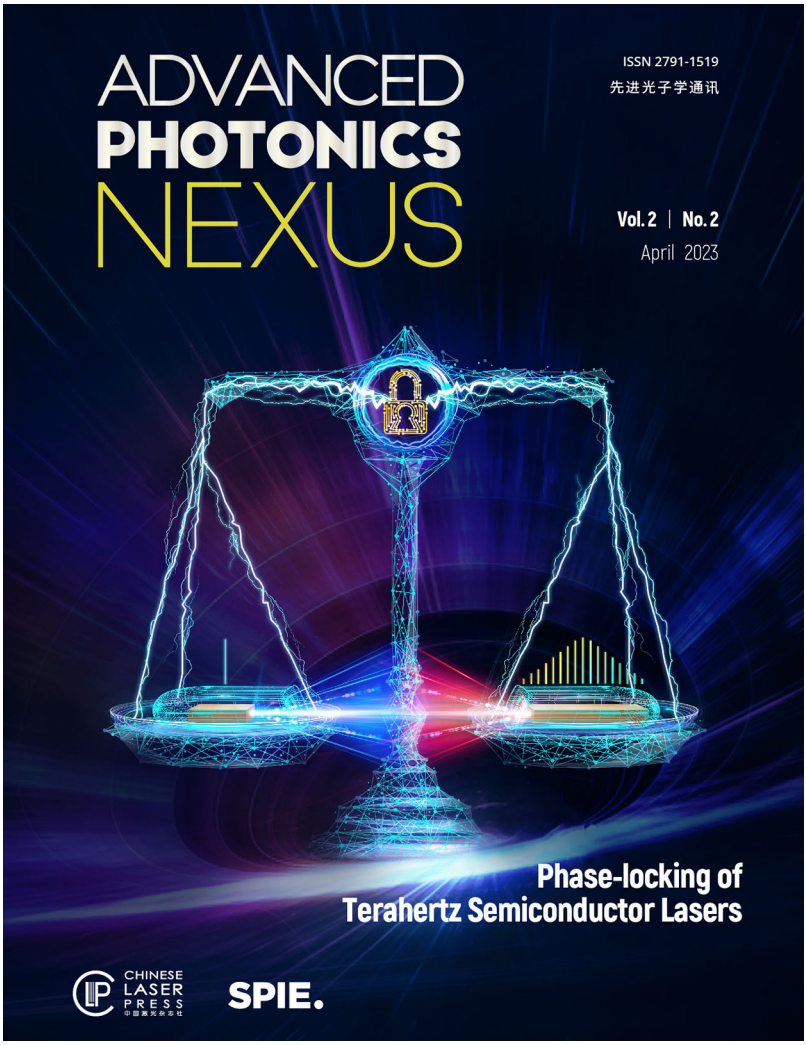

About the cover: *Advanced Photonics Nexus* Volume 2, Issue 2

Stable operation is one of the most important requirements for a laser source for high-precision applications. However, an easy implementation of the stability evaluation of a semiconductor laser is still challenging, especially for lasers emitting in the terahertz frequency range. Researchers from the Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, proposed a simple scheme of relative phase-locking to quickly evaluate the stability of terahertz quantum cascade lasers (QCLs) without using a terahertz local oscillator.

The image on the cover of *Advanced Photonics Nexus* Volume 2 Issue 2 schematically illustrates that by implementing a relative phase-locking method, the long-term stability of a single mode QCL and a QCL frequency comb can be quantitatively compared. The work provides a simple heterodyne scheme for understanding the stability of terahertz semiconductor lasers, which paves the way for further locking of the lasers, and their high-precision applications. The image is based on original research presented in the article "Relative phase locking of a terahertz laser system configured with a frequency comb and a single-mode laser" by Wen Guan, Ziping Li, Shumin Wu, Han Liu, Xuhong Ma, Yiran Zhao, Chenjie Wang, Binbin Liu, Zhenzhen Zhang, Juncheng Cao, and Hua Li (doi 10.1117/1.APN.2.2.026006).